

*B1*

1 (twice amended). A method of mechanically treating a substrate, the method comprising the steps of:

- (a) providing a substrate for mechanical treatment, the substrate selected from the group consisting of a rigid disk or a rigid disk substrate;
- (b) providing an abrasive article in contact with the substrate at a pressure, the abrasive article comprising:

a backing having a first major surface and a second major surface; and

an abrasive coating that is free of abrasive particles, said abrasive coating consisting essentially of:

a hardened binder coating having a first surface adhered to the backing and a second structured surface comprising a plurality of precisely-shaped protrusions; and

a diamond-like carbon coating superposed and adhered to at least a portion of the structured surface of the hardened binder coating; and

- (c) moving at least one of the substrate and the abrasive article relative to the other to provide the mechanical treatment.

*B2*

20 (twice amended). An abrasive article comprising:

a backing having a first major surface and a second major surface; and

an abrasive coating that is free of abrasive particles, said abrasive coating consisting essentially of:

a hardened binder coating having a first surface adhered to the backing and a second structured surface comprising a plurality of precisely-shaped protrusions; and